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**CERTIFICATE OF MAILING:** I hereby certify that this correspondence is being deposited with the U.S. Postal Service first class mail in an envelope addressed to Commissioner for Patents, P.O. Box 1450, Alexandria, 22313-1450 Alexandria on September 29th 2005.

  
Susanne Somersalo

**Certified mail**

United States Patent and Trademark Office  
Commissioner for Patents  
P.O. Box 1450  
Alexandria  
VA 22323-1450

U.S. Application number 10/530,636  
First named applicant: Zavyalov, Vladimir  
Atty Docket :Miniferon  
International filing date 10/07/2003  
Priority date: 10/07/2002  
Confirmation no. 9917

Washington D.C. September 29<sup>th</sup> 2005

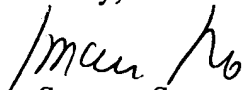
**RE: Reply to notification to comply with requirements for patent applications containing nucleotide and/or amino acid sequence disclosures**

Sir;

This is to reply the notification mailed on 9/19/2005 (copy of the letter is attached). I respectfully submit on behalf of the applicant the corrected Sequence Listing as a paper version and as a computer readable diskette.

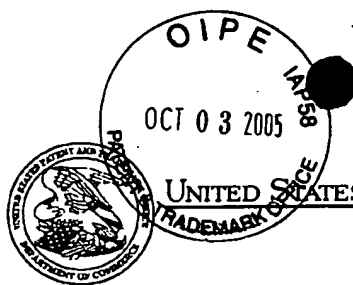
The content of the sequence listing information recorded in computer readable form is identical to the written sequence listing and includes no new matter, as required by 37 CFR 1.821 (e), 1.821 (f), 1.821 (g), 1.825 (b), or 1.825(d).

Yours truly;

  
Leea Susanne Somersalo  
L0092

cc. file

enc. Copy of the notification letter  
Sequence listing in paper form  
Sequence listing in computer readable diskette



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
 United States Patent and Trademark Office  
 Address: COMMISSIONER FOR PATENTS  
 P.O. Box 1450  
 Alexandria, Virginia 22313-1450  
 www.uspto.gov

U.S. APPLICATION NUMBER NO.	FIRST NAMED APPLICANT	ATTY. DOCKET NO.
10/530,636	Vladimir Petrovich Zavyalov	MINIFERON

INTERNATIONAL APPLICATION NO.
-------------------------------

PCT/FI03/00736

I.A. FILING DATE	PRIORITY DATE
10/07/2003	10/07/2002

27772

DODDS & ASSOCIATES  
 1707 N STREET NW  
 WASHINGTON, DC 20036

CONFIRMATION NO. 9917

371 FORMALITIES LETTER



\*OC000000016996270\*

Date Mailed: 09/19/2005

## NOTIFICATION TO COMPLY WITH REQUIREMENTS FOR PATENT APPLICATIONS CONTAINING NUCLEOTIDE AND/OR AMINO ACID SEQUENCE DISCLOSURES

Applicant is given **TWO MONTHS FROM THE DATE OF THIS NOTICE** within which to file the items indicated below to avoid abandonment. Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

- The paper or compact disc copy of the "Sequence Listing" is not the same as the computer readable form of the "Sequence Listing" as required by 37 CFR 1.821(e). Applicant must provide a substitute paper or compact disc copy of the "Sequence Listing", **as well as an amendment specifically directing its entry into the application** OR a substitute computer readable form (CRF) copy of the "Sequence Listing". These two items must be the same. Applicant must also provide a statement that the content of the sequence listing information recorded in computer readable form is identical to the written (on paper or compact disc) sequence listing and, where applicable, includes no new matter, as required by 37 CFR 1.821(e), 1.821(f), 1.821(g), 1.825(b), or 1.825(d). If the effective filing date is on or after September 8, 2000, see the final rulemaking notice published in the Federal Register at 65 FR 54604 (September 8, 2000) and 1238 OG 145 (September 19, 2000).

Applicant is cautioned that correction of the above items may cause the specification and drawings page count to exceed 100 pages. If the specification and drawings exceed 100 pages, applicant will need to submit the required application size fee.

For questions regarding compliance to 37 CFR 1.821-1.825 requirements, please contact:

- For Rules Interpretation, call (571) 272-0951
- For Patentin Software Program Help, call Patent EBC at 1-866-217-9197 or directly at 703-305-3028 / 703-308-6845 between the hours of 6 a.m. and 12 midnight, Monday through Friday, EST.
- Send e-mail correspondence for Patentin Software Program Help @ [ebc@uspto.gov](mailto:ebc@uspto.gov)

Applicant is reminded that any communications to the United States Patent and Trademark Office must be mailed to the address given in the heading and include the U.S. application no. shown above (37 CFR 1.5)

*A copy of this notice **MUST** be returned with the response.*

MAMIE P PERSON

Telephone: (703) 308-9140 EXT 227

PART 1 - ATTORNEY/APPLICANT COPY

U.S. APPLICATION NUMBER NO.	INTERNATIONAL APPLICATION NO.	ATTY. DOCKET NO.
10/530,636	PCT/FI03/00736	MINIFERON

FORM PCT/DO/EO/922 (371 Formalities Notice)



## STIC Biotechnology Systems Branch

### RAW SEQUENCE LISTING ERROR REPORT

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 10/530,636  
Source: PCT/10  
Date Processed by STIC: 4/13/05

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.

PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:

- 1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,
- 2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY

FOR CRF SUBMISSION AND PATENTIN SOFTWARE QUESTIONS, PLEASE CONTACT MARK SPENCER, TELEPHONE: 571-272-2510; FAX: 571-273-0221

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE CHECKER VERSION 4.2.2 PROGRAM, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW FOR ADDRESS:

<http://www.uspto.gov/web/offices/pac/checker/chkrnote.htm>

Applicants submitting genetic sequence information electronically on diskette or CD-Rom should be aware that there is a possibility that the disk/CD-Rom may have been affected by treatment given to all incoming mail. Please consider using alternate methods of submission for the disk/CD-Rom or replacement disk/CD-Rom. Any reply including a sequence listing in electronic form should NOT be sent to the 20231 zip code address for the United States Patent and Trademark Office, and instead should be sent via the following to the indicated addresses:

1. EFS-Bio (<<http://www.uspto.gov/ebc/efs/downloads/documents.htm>> , EFS Submission User Manual - ePAVE)
2. U.S. Postal Service: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450
3. Hand Carry, Federal Express, United Parcel Service, or other delivery service (EFFECTIVE 01/14/05):  
U.S. Patent and Trademark Office, Mail Stop Sequence, Customer Window, Randolph Building, 401 Dulany Street, Alexandria, VA 22314

Revised 01/24/05



## Raw Sequence Listing Error Summary

ERROR DETECTED	SUGGESTED CORRECTION	SERIAL NUMBER: <u>10/530,636</u>
ATTN: NEW RULES CASES: PLEASE DISREGARD ENGLISH "ALPHA" HEADERS, WHICH WERE INSERTED BY PTO SOFTWARE		
1 _____ Wrapped Nucleics Wrapped Aminos	The number/text at the end of each line "wrapped" down to the next line. This may occur if your file was retrieved in a word processor after creating it. Please adjust your right margin to .3; this will prevent "wrapping."	
2 _____ Invalid Line Length	The rules require that a line not exceed 72 characters in length. This includes white spaces.	
3 _____ Misaligned Amino Numbering	The numbering under each 5 <sup>th</sup> amino acid is misaligned. Do not use tab codes between numbers; use space characters, instead.	
4 _____ Non-ASCII	The submitted file was not saved in ASCII(DOS) text, as required by the Sequence Rules. Please ensure your subsequent submission is saved in ASCII text.	
5 _____ Variable Length	Sequence(s) _____ contain n's or Xaa's representing more than one residue. Per Sequence Rules, each n or Xaa can only represent a single residue. Please present the maximum number of each residue having variable length and indicate in the <220>-<223> section that some may be missing.	
6 _____ PatentIn 2.0 "bug"	A "bug" in PatentIn version 2.0 has caused the <220>-<223> section to be missing from amino acid sequences(s) _____. Normally, PatentIn would automatically generate this section from the previously coded nucleic acid sequence. Please manually copy the relevant <220>-<223> section to the subsequent amino acid sequence. This applies to the mandatory <220>-<223> sections for Artificial or Unknown sequences.	
7 _____ Skipped Sequences (OLD RULES)	Sequence(s) _____ missing. If intentional, please insert the following lines for each skipped sequence: (2) INFORMATION FOR SEQ ID NO:X: (insert SEQ ID NO where "X" is shown) (i) SEQUENCE CHARACTERISTICS: (Do not insert any subheadings under this heading) (xi) SEQUENCE DESCRIPTION:SEQ ID NO:X: (insert SEQ ID NO where "X" is shown) This sequence is intentionally skipped  Please also adjust the "(ii) NUMBER OF SEQUENCES:" response to include the skipped sequences.	
8 _____ Skipped Sequences (NEW RULES)	Sequence(s) _____ missing. If intentional, please insert the following lines for each skipped sequence. <210> sequence id number <400> sequence id number 000	
9 _____ Use of n's or Xaa's (NEW RULES)	Use of n's and/or Xaa's have been detected in the Sequence Listing. Per 1.823 of Sequence Rules, use of <220>-<223> is MANDATORY if n's or Xaa's are present. In <220> to <223> section, please explain location of n or Xaa, and which residue n or Xaa represents.	
10 _____ Invalid <213> Response	Per 1.823 of Sequence Rules, the only valid <213> responses are: Unknown, Artificial Sequence, or scientific name (Genus/species). <220>-<223> section is required when <213> response is Unknown or is Artificial Sequence	
11 _____ Use of <220>	Sequence(s) _____ missing the <220> "Feature" and associated numeric identifiers and responses. Use of <220> to <223> is MANDATORY if <213> "Organism" response is "Artificial Sequence" or "Unknown." Please explain source of genetic material in <220> to <223> section. (See "Federal Register," 06/01/1998, Vol. 63, No. 104, pp. 29631-32) (Sec. 1.823 of Sequence Rules)	
12 _____ PatentIn 2.0 "bug"	Please do not use "Copy to Disk" function of PatentIn version 2.0. This causes a corrupted file, resulting in missing mandatory numeric identifiers and responses (as indicated on raw sequence listing). Instead, please use "File Manager" or any other manual means to copy file to floppy disk.	
13 _____ Misuse of n/Xaa	"n" can only represent a single nucleotide; "Xaa" can only represent a single amino acid	



PCT

RAW SEQUENCE LISTING  
PATENT APPLICATION: US/10/530,636

DATE: 04/13/2005  
TIME: 16:15:21

Input Set : A:\Miniferon.ST25.txt  
Output Set: N:\CRF4\04132005\J530636.raw

3 <110> APPLICANT: Zavyalov, Vladimir  
5 <120> TITLE OF INVENTION: Peptides and recombinant proteins mimicking interferons  
7 <130> FILE REFERENCE: Miniferon  
C--> 9 <140> CURRENT APPLICATION NUMBER: US/10/530,636  
C--> 10 <141> CURRENT FILING DATE: 2005-04-06

12 <160> NUMBER OF SEQ ID NOS: 4

14 <170> SOFTWARE: PatentIn version 3.3

16 <210> SEQ ID NO: 1

17 <211> LENGTH: 8

18 <212> TYPE: PRT

19 <213> ORGANISM: human interferon alfa2

21 <400> SEQUENCE: 1

23 Leu Lys Glu Lys Lys Tyr Ser Pro

24 1 5

27 <210> SEQ ID NO: 2

28 <211> LENGTH: 7

29 <212> TYPE: PRT

30 <213> ORGANISM: human interferon alfa2

32 <400> SEQUENCE: 2

34 Leu Lys Asp Arg His Asp Phe

35 1 5

38 <210> SEQ ID NO: 3

39 <211> LENGTH: 17

40 <212> TYPE: PRT

41 <213> ORGANISM: synthetic

44 <220> FEATURE:

45 <221> NAME/KEY: PEPTIDE

46 <222> LOCATION: (1)..(8)

47 <223> OTHER INFORMATION: peptide sequence from human interferon alfa2 (aa 130-137)

49 <220> FEATURE:

50 <221> NAME/KEY: PEPTIDE

51 <222> LOCATION: (9)..(10)

52 <223> OTHER INFORMATION: linker

54 <220> FEATURE:

55 <221> NAME/KEY: PEPTIDE

56 <222> LOCATION: (11)..(17)

57 <223> OTHER INFORMATION: peptide sequence from human interferon alfa2 (aa 30-36)

59 <400> SEQUENCE: 3

61 Leu Lys Glu Lys Lys Tyr Ser Pro Ser Ser Leu Lys Asp Arg His Asp

62 1 5 10 15

65 Phe

69 <210> SEQ ID NO: 4

70 <211> LENGTH: 17

Does Not Comply  
Corrected Diskette Needed

pp 1-2

invalid <213> response. See item 10 on Euro summary sheet

## RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/530,636

DATE: 04/13/2005

TIME: 16:15:21

Input Set : A:\Miniferon.ST25.txt

Output Set: N:\CRF4\04132005\J530636.raw

71 <212> TYPE: PRT  
72 <213> ORGANISM: synthetic  
75 <220> FEATURE:  
76 <221> NAME/KEY: PEPTIDE  
77 <222> LOCATION: (1)..(8)  
78 <223> OTHER INFORMATION: peptide sequence from human interferon alfa2 (aa 130-137)  
80 <220> FEATURE:  
81 <221> NAME/KEY: PEPTIDE  
82 <222> LOCATION: (9)..(10)  
83 <223> OTHER INFORMATION: linker  
84 X is any short chain amino acid  
86 <220> FEATURE:  
87 <221> NAME/KEY: PEPTIDE  
88 <222> LOCATION: (11)..(17)  
89 <223> OTHER INFORMATION: peptide sequence from human interferon alfa2 (aa 30-36)  
91 <400> SEQUENCE: 4  
93 Leu Lys Glu Lys Lys Tyr Ser Pro Xaa Xaa Leu Lys Asp Arg His Asp  
94 1 5 10 15  
97 Phe



## RAW SEQUENCE LISTING ERROR SUMMARY

PATENT APPLICATION: US/10/530,636

DATE: 04/13/2005

TIME: 16:15:22

Input Set : A:\Miniferon.ST25.txt

Output Set: N:\CRF4\04132005\J530636.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:4; Xaa Pos.:9,10

## VERIFICATION SUMMARY

PATENT APPLICATION: US/10/530,636

DATE: 04/13/2005

TIME: 16:15:22

Input Set : A:\Miniferon.ST25.txt

Output Set: N:\CRF4\04132005\J530636.raw

L:9 M:270 C: Current Application Number differs, Replaced Current Application Number  
L:10 M:271 C: Current Filing Date differs, Replaced Current Filing Date  
L:93 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:0

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